

Question Q217

National Group: ISRAEL

Title: **The patentability criterion of inventive step / non-obviousness**

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Questions

I. Analysis of current law and case law

The Groups are invited to answer the following questions under their national laws:

Level of inventive step / non-obviousness

Q1. What is the standard for inventive step / non-obviousness in your jurisdiction? How is it defined?

A1. Section 5 of the Israel Patent Law defines "Inventive Step" as an advancement which would not be obvious to one of ordinary skill in the art, on the basis of knowledge available to the public, as defined by Section 4 [of the Israel Patent Law] before the date of filing. Section 1 of the Examination Guidelines (Appendix G) further interprets "Inventive Step" as more than mere novelty, requiring a "quantum" advancement over the prior art.

Q2. Has the standard changed in the last 20 years? Has the standard evolved with the technical / industrial evolution of your jurisdiction?

A2. The landmark decision regarding inventive step in Israeli Law is Hughes Aircraft v The State of Israel (345/87) from 1990. A recent Supreme Court decision (Unipharm Ltd v Smith Kline Beecham PLC, 8802/06) further maintained the definition of "Inventive Step" in Hughes Aircraft v The State of Israel, as requiring a significant contribution to the relevant art...and being an advancement, even a small or modest advancement, but one which possesses the "spark of invention". (Unipharm Ltd v Smith Kline Beecham PLC, 8802/06, section 45).

Q3. Does your patent-granting authority publish examination guidelines on inventive step / non-obviousness? If yes, how useful and effective are the guidelines?

A3. The Israel Patent Office recently (during 2010) published Examination Guidelines, including a detailed section (Appendix G) relating to determination of "Inventive Step". As the Guidelines have been only recently published, it may be premature to comment on their usefulness and effectiveness, or on their impact on actual Examination procedures.

Q4. Does the standard for inventive step / non-obviousness differ during examination versus during litigation or invalidity proceedings?

A4. No. The standard for inventive step applied in litigation does not differ from that applied during examination.

Construction of claims and interpretation of prior art

Q5. How are the claims construed in your jurisdiction? Are they read literally, or as would be understood by a person skilled in the art?

A5. Case law adopted the purposive approach to patent claim interpretation. Purposive interpretation requires claims to be read in the eyes of a person skilled in the art and construed in view of the body of the specification, including the drawings. Literal reading of the claims, while disregarding the specification, is explicitly prohibited.

Q6. Is it possible to read embodiments from the body of the specification into the claims?

A6. As explained above, patent claims must be read in view of the specification. Accordingly, the embodiments in the specification may serve in the interpretation of the claims.

Q7. How is the prior art interpreted? Is it read literally or interpreted as would be understood by a person skilled in the art? Is reliance on inherent disclosures (aspects of the prior art that are not explicitly mentioned but would be understood to be present by a person skilled in the art) permitted?

A7. In deciding questions of "Inventive Step", the prior art is to be interpreted as would be understood by one of ordinary skill in the art, and not simply literally. As "one of skill in the art" is defined as "possessing all of the publicly available knowledge in his specific technical field, and in closely related fields, and knowledgeable of all the accepted methods in his field", inherent disclosures can be relied upon in interpreting the prior art. However, according to the Examination Guidelines, "skill" is limited to the technical aspects of the relevant field, and "one of skill in the art", by definition, does not exercise "inventive thought".

Q8. Do the answers to any of the questions above differ during examination versus during litigation?

A8. No. The standards applied in litigation do not differ from those applied during examination.

Combination or modification of prior art

Q9. Is it proper in your jurisdiction to find lack of inventive step or obviousness over a single prior art reference? If yes, and assuming the

claim is novel over the prior art reference, what is required to provide the missing teaching(s)? Is argument sufficient? Is the level of the common general knowledge an issue to be considered?

A9. It is not precluded to find lack of inventive step based on a single prior art reference, in the event that the difference between the subject matter of that reference and the invention would have been regarded obvious by a person skilled in the art in view of the common general knowledge.

Q10. What is required to combine two or more prior art references? Is an explicit teaching or motivation to combine required?

A10. Two or more prior art references can be combined to determine lack of "Inventive Step", when their combination would be considered natural and commonplace by one of skill in the relevant art. References can be combined, for example, when one of the references cites the second, when one of the references suggests an element of the claimed invention, and the suggested element is disclosed in the second reference.

Q11. When two or more prior art references are combined, how relevant is the closeness of the technical field to what is being claimed? How relevant is the problem the inventor of the claim in question was trying to solve?

A11. Generally, the prior art references are preferably from the same or related fields. However, case law (*Akerstein v Alumim*, 197) has also more broadly allowed "all relevant knowledge, including mechanical or scientific knowledge, which could be applied to the invention as claimed...even from fields remote from that of the invention". The Guidelines also state that not-closely related references may be combined to determine lack of "Inventive Step" when one reference describes the claimed invention in general terms, and the second reference, from a remote field, describes specific element(s) as found in the invention as claimed. Regarding the "problem to be solved", determination of lack of "Inventive Step" may be made on the basis of a reference, combined with general knowledge, textbook knowledge, basic technical publications in a relevant art, provided that such general knowledge, textbook knowledge or technical publications are so well known that one of skill in the relevant art would instantly call them to mind when attempting to solve the technical problem in view of the other reference.

Q12. Is it permitted in your jurisdiction to combine more than two references to show lack of inventive step or obviousness? Is the standard different from when only two references are combined?

A12. Although combining two or more reference is allowed, at the discretion of the Examiner, the need to combine more than three references in a rejection incurs doubt with regard to the lack of "Inventive Step", doubt that increases with the number of prior art references required to make the case for lack of "Inventive Step". Circumstances in which combining larger numbers of references may be permissible include the combination of references relating to well known elements.

Q13. Do the answers to any of the questions above differ during examination versus during litigation?

A13. No. The standards applied in litigation do not differ from those applied during examination.

Technical Problem

Q14. What role, if any, does the technical problem to be solved play in determining inventive step or non-obviousness?

A14. When determining the Inventive Step of an invention which is asserted by the applicant to have solved a problem, consideration is normally given to whether it would have been obvious to a person of ordinary skill in the art, in view of the prior art and common general knowledge, to solve the problem as taught by the invention. In addition, within the framework of Secondary Considerations, the fact that many previous attempts to solve the problem have failed, or that there was a "long felt need" for a solution to the problem, would support a finding of inventive step. However, it should be noted that the "problem-solution" approach which is applied by the EPO (*i.e.* identifying the closest prior art, determining the objective technical problem in view of that closest prior art, and determining whether the claimed invention is obvious), has not been adopted in Israel.

Q15. To what degree, if any, must the technical problem be disclosed or identified in the specification?

A15. There is no explicit requirement that the technical problem be identified in the specification. Section 12 of the Patents Law, 5727-1967 merely provides that "the specification shall contain a title by which it is possible to identify the invention, a description of the invention, with drawings as may be necessary, and a description of the manner of carrying out the invention such that a man of the art can carry it out according thereto". Regulation 20 of the Patent Regulations (Office Procedures, Legal Procedures, Documents and Fees), 1968, further provides that the specification shall include, *inter alia*, "an introduction explaining the purpose of the invention and a concise description of the state of the art in the field of the invention, to the extent known to the applicant in view of the invention".

Advantageous effects

Q16. What role, if any, do advantageous effects play in determining inventive step or non-obviousness?

A16. Advantageous effects of the claimed invention over the state of the art are to be taken into account in determining "Inventive Step". The Guidelines cite the Hughes Aircraft v State of Israel decision, which emphasized that inventive step may be demonstrated by a technical advancement over the prior art, regardless of the magnitude of the advancement. However, such advancement cannot be simply a new, but analogous use of a known composition or process. In particular, unforeseen advantages resulting from a new combination of known integers is considered evidence of "Inventive Step". However, if it would have been obvious to a person skilled in the art to come to the invention in order to obtain a certain advantageous effect, the fact that the invention is found *post factum* to afford an additional advantageous effect would not confer inventive step.

Q17. Must the advantageous effects be disclosed in the as-filed specification?

A17. There is no case law in Israel on whether advantageous effects need to be disclosed in the specification as filed. However, it has been

held by the Supreme Court (LCA 547/86 Vitamed v. Abic), that the alleged inventive step of the invention (in the said case, a synergistic effect) must be presented in the specification. The applicant is not required to present proof of his arguments within the specifications.

Q18. Is it possible to have later-submitted data considered by the Examiner?

A18. The Supreme Court held (CA 665/84 Sanofi v. Unipharm) that proof of utility (*i.e.*, proof that the invention indeed provides the claimed advantageous effects) need not be included in the specification, and may be submitted later down the road to the examiner or in the framework of opposition proceedings. However, there is no case law in Israel on whether later-submitted data may be considered by the examiner to determine inventive step.

Q19. How "real" must the advantageous effects be? Are paper or hypothetical examples sufficient?

A19. When submitting evidence attesting to advantageous effects, it is common, although not explicitly required in the Examination Guidelines, to include Expert Declarations attesting to the validity and relevance of the evidence, along with documentation of the Experts' qualifications.

Q20. Do the answers to any of the questions above differ during examination versus during litigation?

A20. No. The standards applied in litigation do not differ from those applied during examination.

Teaching away

Q21. Does your jurisdiction recognize teaching away as a factor in favor of inventive step / non-obviousness? Must the teaching be explicit?

A21. Prior art references, which can be demonstrated to teach away from the claimed invention, are a legitimate indication of "Inventive Step". Further, general knowledge in the art, which can be shown to teach away from the invention as claimed should also be considered in determining "Inventive Step".

Q22. Among the other factors supporting inventive step / non-obviousness, how important is teaching away?

A22. There is no indication in Israeli case law that "Teaching away" either takes precedence over, or is it inferior to, other factors supporting inventive step.

Q23. Is there any difference in how teaching away is applied during examination versus in litigation?

A23. No. There is no difference between examination and litigation with regard to the application of "Teaching away" considerations.

Secondary considerations

Q24. Are secondary considerations recognized in your jurisdiction?

A24. Yes. Secondary considerations may be taken into account in determining "Inventive Step". However, taking into account "Secondary Considerations" is not mandatory.

Q25. If yes, what are the accepted secondary considerations? How and to what degree must they be proven? Is a close connection between the *claimed* invention and the secondary considerations required?

A25. The Examination Guidelines detail the following secondary considerations:

- (a) In the case of a combination of known elements, if the resulting effect is greater than the sum of individual effects;
- (b) Commercial success: however, the success must be traceable to the invention, and not a result of irrelevant influences such as, for example, market trends, quality of service, customer preferences, etc.;
- (c) Difficult technical obstacles in the course of development of the invention requiring investment of significant amounts of time and resources, and extensive investigation;
- (d) "Long felt need"- the technical problem to be solved was long recognized but unsolved;
- (e) The claimed invention succeeded in solving a known technical problem where many previous attempts had failed; and
- (f) Unexpected results.

Evidence for such secondary considerations must be provided for consideration by the Examiner.

Q26. Do the answers to any of the questions above differ during examination versus during litigation?

A26. No. The standards applied in litigation do not differ from those applied during examination.

Other considerations

Q27. In addition to the subjects discussed in questions 4 - 26 above, are there other issues, tests, or factors that are taken into consideration in determining inventive step / non-obviousness in your jurisdiction? If yes, please describe these issues, tests, or factors.

A27. Yes. Other considerations- the Examination Guidelines state that "one of ordinary skill in the art" must be informed about current developments in his field, but not used to seeking unconventional solutions to technical problems. Further, the Guidelines state that "one of skill in the art" can be a committee or team of experts from different fields, but only if the expert in the main field relevant to the invention attempting to solve the technical problem is unable to do so on his own, without seeking outside assistance.

Test

Q28. What is the specific statement of the test for inventive step/non-obviousness in your jurisdiction? Is there jurisprudence or other authoritative literature interpreting the meaning of such test and, if so, provide a brief summary of such interpretation.

A28. Section 5 of the Israel Patent Law defines "Inventive Step" as an advancement which would not be obvious to one of ordinary skill in the art, on the basis of knowledge available to the public, as defined by Section 4 [of the Israel Patent Law] before the date of filing. Case law has further elaborated that:

"In deciding the issue of Inventive Step the totality of technical knowledge in the relevant field must be considered, and publications may be combined into a general picture of the state of the art. The act

of combining must also be obvious to one of skill at the relevant time. If inventive step is required- particularly in a gathering of bits of information from remote sources- then the general picture cannot be considered obvious, and one cannot state that the invention as claimed is lacking inventive step." [Hughes Aircraft v The State of Israel (345/87)]. In decisions given by the Patents Office (in the framework of opposition and revocation proceedings), it was held that steps of determining inventive step are as follows:

- (a) Identifying the inventive concept of the invention;
- (b) Determining the relevant prior art and the level of knowledge of a person skilled in the art;
- (c) Identifying the differences (if any) between the state of the art and the concept underlying the invention;
- (d) Determining whether the said differences would have been regarded obvious to a person skilled in the art.

The same decision also presents the criterion of the claimed composition or process possessing a "spark of invention".

Q29. Does such test differ during examination versus during litigation?

A29. No. The test applied during examination and litigation is similar.

Patent granting authorities versus courts

Q30. If there are areas not already described above where the approach to inventive step / non-obviousness taken during examination diverges from that taken by courts, please describe these areas.

Q.31 Is divergence in approach to inventive step / non-obviousness between the courts and the patent granting authority in your jurisdiction problematic?

A30-31. No. The approach to inventive step applied in the framework of litigation does not differ from that applied during examination.

Regional and national patent granting authorities

Q32. If you have two patent granting authorities covering your jurisdiction, do they diverge in their approach to inventive step / non-obviousness?

Q33. If yes, is this problematic?

A32-33. Israel has only one patent granting authority.

II. Proposals for harmonization

The Groups are invited to put forward proposals for the adoption of harmonised rules in relation to the patentability criteria for inventive step / non-obviousness. More specifically, the Groups are invited to answer the following questions without regard to their national laws:

- 34. Is harmonization of inventive step / non-obviousness desirable?
- 35. Is it possible to find a standard for inventive step / non-obviousness that would be universally acceptable?

36. Please propose a definition for inventive step / non-obviousness that you would consider to be broadly acceptable.
37. Please propose an approach to the application of this definition that could be used by examiners and by courts in determining inventive step / non-obviousness.

SUMMARY

In Israeli practice, inventive step is formally determined as follows:

(a) Identifying the inventive concept of the invention; (b) Determining the relevant prior art and the level of knowledge of a person skilled in the art; (c) Identifying the differences (if any) between the state of the art and the concept underlying the invention; and (d) Determining whether the said differences would have been regarded obvious to a person skilled in the art.

Additional criteria which may be taken into account include whether the claimed composition or process possessing a "spark of invention", advantageous effects over the state of the art, secondary considerations, and teaching away.

Regarding advantageous effects, the fact that the invention is found post factum to afford an additional advantageous effect would not confer inventive step.

Admissible secondary considerations include an effect of combining of elements greater than the sum of individual effects; commercial success; difficult technical obstacles in the course of development of the invention; "Long felt need"; success in solving a known technical problem where many previous attempts had failed; and unexpected results.

"Teaching away" neither takes precedence over, nor is it inferior to, other factors supporting inventive step.

When determining Inventive Step, the claims are interpreted purposively, in view of the body of the specification, and literal reading is explicitly prohibited.

Although the "problem-solution" approach which is applied by the EPO (i.e. identifying the closest prior art, determining the objective technical problem in view of that closest prior art, and determining whether the claimed invention is obvious), has not been adopted in Israel, and no technical problem to be solved need be identified in the specification, Inventive Step may be determined on the basis of providing a non-obvious solution to a problem.

When determining Inventive Step, rejection based on combination of two or more prior art references, even from fields remote from that of the invention, is common, although consideration of even a single prior art reference may suffice. Combination of more than three references, however, incurs doubt, doubt that increases with the number of prior art references required to make the case for lack of "Inventive Step". Inherent disclosures can be relied upon in interpreting the prior art.

Explicit guidelines for Examination have been recently published.

As in other aspects of Israel Patent Law, the standard for determining Inventive Step applied in litigation does not differ from that applied during examination.